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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,792	04/04/2001	Hui-ling Chou	CHOU3002/EM/6667	2960
7590	09/23/2004		EXAMINER	
BACON & THOMAS, PLLC 625 Slaters Lane, 4th Floor Alexandria, VA 22314-1176			SAFAIPOUR, HOUSHANG	
			ART UNIT	PAPER NUMBER
			2622	

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/824,792	CHOU, HUIL-ING
	Examiner Houshang Safaipour	Art Unit 2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-20 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-20 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 04 April 2001 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                             |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. ____.                                                |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|                                                                                                                        | 6) <input type="checkbox"/> Other: ____.                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-11, 13-18 and 20 rejected under 35 U.S.C. 102(b) as being anticipated by Tomohisa et al. (U.S. Patent No. 4,712,141).

Regarding claim 1, Tomohisa et al discloses a method for increasing scan resolution without varying hardware specification, said method comprising the steps of: obtaining a data quantum based on an indicated scan range and an indicated scan resolution; when said data quantum is higher than a threshold of scanner hardware, generating a scanned image of said indicated scan range by using a highest resolution provided by an image sensor; and performing an interpolation to said scanned image for increasing resolution of said scanned image to said indicated scan resolution (col. 4, lines 3-9 and col. 17, line 19 through col. 18 line 60).

Regarding claim 2, Tomohisa et al discloses the method according to claim 1, further comprising a step of performing a scan operation to said indicated scan range when said data quantum is not higher than said threshold (col. 4, lines 3-9 and col. 17, line 19 through col. 18 line 60).

Regarding claim 3, Tomohisa et al discloses the method according to claim 1, said data quantum being determined by using said highest resolution provided by said image sensor, bytes for color illustrations to each pixel, and said indicated scan range (col. 18, lines 4-60).

Regarding claim 4, Tomohisa et al discloses the method according to claim 1, said image sensor being a charge coupled device, a contact image sensor, or a CMOS sensor (col. 2 lines 24-31).

Regarding claim 6, Tomohisa et al discloses the method according to claim 1, further comprising a pre-scan step for generating a pre-scan image of a document sheet used for selections to said indicated scan range and said indicated scan resolution (col. 4, lines 3-9 and col. 17, line 19 through col. 18 line 60).

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Regarding claims 7, 8, 14 and 15, arguments analogous to those presented for claim 1 are applicable to claims 7, 8, 14 and 15.

Regarding claims 9 and 16, arguments analogous to those presented for claim 2 are applicable to claims 9 and 16.

Regarding claims 10 and 17, arguments analogous to those presented for claim 3 are applicable to claims 10 and 17.

Regarding claims 11 and 18, arguments analogous to those presented for claim 4 are applicable to claims 11 and 18.

Regarding claims 12 and 19, arguments analogous to those presented for claim 5 are applicable to claims 12 and 19.

Regarding claims 13 and 20, arguments analogous to those presented for claim 6 are applicable to claims 13 and 20.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomohisa et al. (U.S. Patent No. 4,712,141) and further in view of Applicant's Admitted Prior Art (AAPA).

Regarding claims 5, 12 and 19 Tomohisa et al. does not explicitly disclose performing interpolation by using bilinear or bicubic algorithm, however , as admitted by the applicant (page 6, lines 1-3), these are conventional methods and are utilized in the art for interpolation. Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to include these types of algorithm in Tomohisa's interpolation procedures.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Houshang Safaipour whose telephone number is (703)306-4037. The examiner can normally be reached on Mon.-Thurs. from 6:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L Coles, Sr. can be reached on (703)305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Houshang Safaipour  
Patent Examiner  
Art Unit 2622  
September 17, 2004

  
EDWARD COLES  
SUPERVISOR - EXAMINER  
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